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EXAMINER

LEE, CHEUKFAN

ART UNIT PAPER NUMBER

2622

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/746,333

Applicant(s)

CLIFTON, LORI

Examiner

Cheukfan Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on an amendment filed April 12, 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-10 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-10 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

1. Claims 1, 3-10, and 12-20 are pending. Claims 1, 10 and 19 are independent.
2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1, 3, 5-7, 10, 12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motamed (U.S. Patent No. 6,327,047) in view of Kato (U.S. Patent No. 5,214,518).

Regarding claim 1, Motamed discloses a scanner and a method for calibrating the scanner. The scanner is inherently housed in a housing as claimed, according to the description of Motamed of the scanner (col. 3, line 65 – col. 4, line 8). The housing inherently includes a first side (top side) supporting the scanning window (scanner glass) and a second side (bottom side) opposite the first side, since the scanner has a cover (to which a calibration target strip may be attached and scanned by the scanning array in another embodiment), and a calibration target strip to be used to calibrate the scanner is attached by the user to an inside surface of the scanner glass (scanning window). It is also inherent that the scanner has a scanning array and a light source

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both generally facing the first side (top side) of the housing and both movable in the housing relative to the scanning window (scanner glass) along a scanning path (the subscanning direction) (Figs. 2a and 5, col. 3, line 65 – col. 4, line 21, col. 6, line 46).

Claim 1 has been amended so that the calibration target is supported on the inside surface of the first side of the housing and spaced apart from the window.

In Motamed, the reason for the attachable targets is that it provides to the user more flexibility of calibration targets to use or choose from. However, one of ordinary skill in the art would have realized that without such flexibility, the calibration function would still be valid. That is, the one calibration target used in the scanner time after time would enable the scanner to perform the calibration if needed.

Motamed differs from the claimed invention in that the calibration target is not placed on the inside surface of the first side of the housing and spaced apart from the window. However, such structural relationship of the calibration target and housing is not novel but is taught by Kato (Fig. 4, col. 5, lines 45-58). The target (26) is placed on the inside surface of the upper side (first side) of the housing (21) and spaced apart from the window (23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the calibration target placed on the inside surface of the upper side of the housing of Motamed as taught by Kato so that the target is out of sight of the user.

Regarding claims 3 and 5, the scanning array of Motamed is a color capable scanning array because among many calibration target strips to select from, the calibration target strip to be used, the ANSI-standard IT8 target (col. 5, lines 49-51), is a color strip which comprises color patches (col. 1, lines 42-43) and the scanner is part of a color image reproduction system being explained (col. 1, lines 10-52).

Regarding claim 6, among the calibration targets to select from, the Kodak® Gray Scale comprises patches of varying densities of gray, which inherently includes black, meets the claimed black target (col. 1, lines 35-42).

Regarding claim 7, as discussed for claims 3 and 5, the IT8 calibration target comprises color patches, which inherently include three or more color patches. (Fig. 2a shows more than three color patches or calibration targets.) The color patches are inherently used for color registration (col. 1, lines 10-52).

Claims 10, 12 and 14-16 are rejected as being method claims corresponding to rejected apparatus claims 1, 3 and 5-7, respectively. Further, with regard to the newly added limitation of claim 10, "permanently providing ... a calibration target", as discussed for claim 1 above, the purpose of Motamed's invention is to allow different targets of characteristics to be used with the scanner, providing more flexibility of the type of calibration targets. However, one of ordinary skill in the art would have realized that a permanently provided target means less "work" for the user. In Kato, the target is

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more permanently placed on the inside surface of the inside of the housing which is not seen through the document glass (23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to permanently provide the target as is in Kato instead of making it more flexible in the type of target.

5. Claims 8, 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motamed (U.S. Patent No. 6,324,047) in view of Kato (U.S. Patent No. 5,214,518), as applied to claim 1 above, in view of Selby (U.S. Patent No. 5,404,232).

Regarding claims 8 and 9, Motamed in view of Kato differs from the claimed invention in that Motamed does not specifically disclose starting the calibration target strip scanning process in response to the scanner being turned on.

However, in addition to the features discussed for claim 1 above, Motamed further discloses an interactive means by which the user can interact with the scanner controller engine. The user decides whether the scanner is to be calibrated or not (step 303 of Fig. 5, col. 6, lines 30-33). If the user desires, the user can calibrate the scanner for every single scan. The user can decide not to calibrate during a scan if it is ore important to the user to perform the scan quickly rather than take the time to calibrate the scanner (col. 6, lines 23-46). Thus, **the control system of the scanner is flexible on the frequency of and time for scanner calibration.** Furthermore, a scanner power-on switch is inherent in Motamed, and logic circuitry is inherent for effecting movement of the scanning array relative to the scanning glass.

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The idea of performing a scanner calibration process at the daily power-up of the scanner to ensure good performance of the scanner is not novel as is taught by Selby (col. 1, lines 31-50).

Since the control system of the scanner of Motamed is flexible on the frequency of and the time for scanner calibration as discussed above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control system of the scanner of Motamed in view of Kato to perform the calibration process in response to the power-up signal of the scanner in order to ensure good performance of the scanner as taught by Selby.

With respect to the claimed motor configured to move the scanning array, the coupling of the scanner power switch to the scanning array and the motor, the coupling of logic circuitry to the power switch, scanning array and motor, Motamed's invention is applied to scanners, including color scanners, of the type that has a cover and a scanner glass for placing a document thereon, as discussed for claim 1 above. This type of scanner generally employs a linear scanning module driven by a motor such as a stepping motor in the subscanning direction of the scanner, which is discussed by Motamed in the discussion of prior art, the Description of the Prior Art (cols. 1 and 2). In that discussion (col. 2, line 15), the prior art scanner specifically includes a scanning module of the type having a light source and a linear sensor array and is generally driven by a motor in the subscanning direction of the scanner (Figs. 4, 5A and 5B of that prior art). Logic circuitry is inherent in the prior art scanner for controlling the motor and

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movement of the scanning module. Thus, the structure of the scanner claimed is not novel.

Based on the reasons of obviousness given above for claim 8 for starting the calibration process upon scanner power-up, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the idea of Selby of starting the calibration process upon scanner power-up, and to couple the inherent scanner power switch to the motor and scanning module, and couple the logic circuitry to the power switch, the scanning module and the motor in such a way that the scanning module is moved in the subscanning direction to scan the calibration target strip in response to the scanner power being turned on, in order to avoid time loss due to calibration at time other than the power-up time at which a user desires to use the scanner.

Regarding claim 9, the claim limitations are met by Motamed. The IT8 calibration target being used comprises color patches, which inherently include three or more color patches. The color patches read on the claimed first, second and third targets (col. 1, lines 10-52). (Fig. 2a of Motamed shows more than three targets.) The calibration target strip is attached or adhered to the inside surface of the scanning glass as discussed above. For reasons given for claim 1, the calibration target needs not be applied to the scanner by the user.

Claims 17 and 18 are rejected as being method claims corresponding to rejected apparatus claims 8 and 9, respectively



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6. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motamed (U.S. Patent No. 6,324,047) in view of Kato (U.S. Patent No. 5,214,518), as applied to claims 1 and 3 above, in view of Fukushi (U.S. Patent No. 6,226,105).

Regarding claim 4, Motamed discussed for claims 1 and 3 further discloses a printer (col. 7, lines 10-42), but the printer is not housed in the same house as the scanner as claimed.

Fukushi discloses that a flat bed scanner and a printer are advantageously placed in the same housing (col. 2, lines 37-40, col. 3, lines 49-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the scanner and printer of Motamed in view of Kato housed in the same housing as taught by Fukushi to take advantage of the fact that a single housing or unit has a better appearance than more than one housing or unit.

With regard to the claimed monochrome printer, Fukushi does not specifically disclose that the printer in the single housing is a monochrome printer. However, nowhere in Fukushi specifically disclose that the printer cannot be a monochrome printer. A thermal transfer type or thermal sublimative type of full-color printer can be "preferably" used (col. 9, lines 1-5). One of ordinary skill in the art would have realized that the single housing of Fukushi is capable of housing a monochrome printer and the scanner instead of the color printer and scanner. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a monochrome printer in place of a color printer in the housing of Motamed in view of

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Kota in order to print black and white images and reduce cost as compare to employing a color printer.

Claim 13 is rejected as being a method claim corresponding to the rejected apparatus claim 4.

7. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Motamed (U.S. Patent No. 6,324,047) in view of Kato (U.S. Patent No. 5,214,518), Selby (U.S. Patent No. 5,404,232) and Fukushi (U.S. Patent No. 6,226,105).

Regarding claim 19, the claim was mainly amended so that the targets are attached to the inside surface of the top side, spaced apart from the window.

Motamed discloses a scanner and a method for calibrating the scanner. The scanner is inherently housed in a housing, which reads on the claimed sub-housing, according to the description of Motamed of the scanner (col. 3, line 65 – col. 4, line 8). The sub-housing for the scanner inherently includes a first side (top side) supporting the scanning window (scanner glass) and a second side (bottom side) opposite the first side, since the scanner has a cover (to which a calibration target strip may be attached and scanned by the scanning array in another embodiment), and a calibration target strip to be used to calibrate the scanner is attached by the user to an inside surface of the scanner glass (scanning window) to face the second side of the sub-housing of the scanner. It is also inherent that the scanner has a scanning array and a light source both generally facing the first side (top side) of the housing and both movable in the

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housing relative to the scanning window (scanner glass) along a scanning path (the subscanning direction) (Figs. 2a and 5, col. 3, line 65 – col. 4, line 21, col. 6, line 46, and col. 2, lines 13-32). A printer is further shown to be in a separate housing (Fig. 6B). These explanations of the scanner fit the description of a flatbed scanner.

The scanner of Motamed is a color scanner because among many calibration target strips to select from, the calibration target strip to be used, the ANSI-standard IT8 target (col. 5, lines 49-51), is a color strip which comprises color patches (col. 1, lines 42-43) and the scanner is part of a color image reproduction system being explained (col. 1, lines 10-52).

Claim 19 has been amended mainly such that the calibration target is supported on the inside surface of the first side of the housing and spaced apart from the window.

In Motamed, the reason for the attachable targets is that it provides to the user more flexibility of calibration targets to use or choose from. However, one of ordinary skill in the art would have realized that without such flexibility, the calibration function would still be valid. That is, the one calibration target used in the scanner time after time would enable the scanner to perform the calibration if needed.

Motamed differs from the claimed invention in that the calibration target is not placed on the inside surface of the first side of the housing and spaced apart from the window. However, such structural relationship of the calibration target and housing is not novel but is taught by Kato (Fig. 4, col. 5, lines 45-58). The target (26) is placed on the inside surface of the upper side (first side) of the housing (21) and spaced apart from the window (23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the calibration target placed on the inside surface of the upper side of the housing of Motamed as taught by Kato so that the target is out of sight of the user.

Motamed in view of Kota differs from the claimed invention in that a) none of Motamed and Kota specifically discloses starting the calibration target strip scanning process in response to the scanner being turned on, and b) none of Motamed and Kota discloses a housing for housing the sub-housing of the scanner.

However, in addition to the features discussed for claim 1 above, Motamed further discloses an interactive means by which the user can interact with the scanner controller engine. The user decides whether the scanner is to be calibrated or not (step 303 of Fig. 5, col. 6, lines 30-33). If the user desires, the user can calibrate the scanner for every single scan. The user can decide not to calibrate during a scan if it is ore important to the user to perform the scan quickly rather than take the time to calibrate the scanner (col. 6, lines 23-46). Thus, **the control system of the scanner is flexible on the frequency of and time for scanner calibration.** Furthermore, a scanner power-on switch is inherent in Motamed, and logic circuitry is inherent for effecting movement of the scanning array relative to the scanning glass.

With respect to the above difference a) between Motamed in view of Kota and the claimed invention, the idea of performing a scanner calibration process at the daily

power-up of the scanner to ensure good performance of the scanner is not novel as is taught by Selby (col. 1, lines 31-50).

Since the control system of the scanner of Motamed is flexible on the frequency of and the time for scanner calibration as discussed above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the control system of the scanner of Motamed in view of Kota to perform the calibration process in response to the power-up signal of the scanner in order to ensure good performance of the scanner as taught by Selby.

With respect to the claimed motor configured to move the scanning array, the coupling of the scanner power switch to the scanning array and the motor, the coupling of logic circuitry to the power switch, scanning array and motor, Motamed's invention is applied to scanners, including color scanners, of the type that has a cover and a scanner glass for placing a document thereon, as discussed for claim 1 above. This type of scanner generally employs a linear scanning module driven by a motor such as a stepping motor in the subscanning direction of the scanner, which is discussed by Motamed in the discussion of prior art, the Description of the Prior Art (cols. 1 and 2). In that discussion (col. 2, line 15), the prior art scanner specifically includes a scanning module of the type having a light source and a linear sensor array and is generally driven by a motor in the subscanning direction of the scanner (Figs. 4, 5A and 5B of that prior art). Logic circuitry is inherent in the prior art scanner for controlling the motor and movement of the scanning module. Thus, the structure of the scanner claimed is not novel.

Based on the reasons of obviousness given above for starting the calibration process upon scanner power-up, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the idea of Selby of starting the calibration process upon scanner power-up, and to couple the inherent scanner power switch to the motor and scanning module, and couple the logic circuitry to the power switch, the scanning module and the motor in such a way that the scanning module is moved in the subscanning direction to scan the calibration target strip in response to the scanner power being turned on, in order to avoid time loss due to calibration at time other than the power-up time at which a user desires to use the scanner.

With respect to the above difference b) between Motamed in view of Kota and Selby and the claimed invention, Fukushi discloses that a flat bed scanner and a printer are advantageously placed in the same housing (col. 2, lines 37-40 and col. 3, lines 49-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the scanner sub-housing and the printer of Motamed in view of Kota and Selby placed in the same housing as taught by Fukushi to take advantage of the fact that a single unit or housing has a better appearance than more than one housing or unit.

With regard to the claimed monochrome printer, Fukushi does not specifically disclose that the printer in the single housing is a monochrome printer. However, nowhere in Fukushi specifically disclose that the printer cannot be a monochrome printer. A thermal transfer type or thermal sublimative type of full-color printer can be

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"preferably" used (col. 9, lines 1-5). One of ordinary skill in the art would have realized that the housing of Fukushi is capable of housing a monochrome printer and the scanner sub-housing instead of the color printer and scanner. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a monochrome printer in place of a color printer in the housing in order to print black and white images and reduce cost as compare to employing a color printer.

Regarding claim 20, insofar as the claim is understood to have first, second and third calibration targets, the claim limitations are met by Motamed. The IT8 calibration target being used comprises color patches, which inherently include three or more color patches. The color patches read on the claimed first, second and third targets (col. 1, lines 10-52). (Fig. 2a of Motamed shows more than three targets.)

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheukfan Lee whose telephone number is (703) 305-4867. The examiner can normally be reached on 9:30 a.m. to 6:00 p.m., Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cheukfan Lee  
June 25, 2004

A handwritten signature in cursive script, appearing to read "Cheukfan Lee", is written over a printed name. The signature is fluid and stylized, with the first and last names being clearly legible despite the cursive style.